

Date: Monday, 22/12/2008 2:13:48 PM  
 User: Melanie Fauteux

## Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : BEARPAW KIT (19"X24")
Job Number : 44223	
Estimate Number : 10323	
P.O. Number :	Part Number : D206559013
This Issue : 22/12/2008 S.O. No. :	Drawing Number : D2432 REV F3
Prsht Rev. : NC	Project Number : N/A
First Issue : / / Type : MACHINED PARTS	Drawing Revision : F3
Previous Run : 42938	Material :
Written By :	Due Date : 20/01/2009 Qty: 4 Um: Each
Checked & Approved By : <u>mf 08-12-22</u>	
Comment : Est Rev:J 04.02.17 Blank size changed KJ/JLM Est Rev:K 07-01-02 Was K10008 JLM Est Rev:L 08-01-09 Added Step 2 JLM Verified By:EC Est Rev:M 08-04-29 update seq. 8 and 12 DD verified by:EC Est Rev:N 08-10-15 New Manufacturing Method JLM Verified By:EC	

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

1.0	DC	DOCUMENT CONTROL
-----	----	------------------

Comment: DOCUMENT CONTROL

Photocopy bluefile and create labels per PPP D206-559-013 CHG005

2.0	MFG ENGINEERING	MFG ENGINEERING
-----	-----------------	-----------------

Comment: MFG ENGINEERING

Program Batch Number

3.0	MUHMWB10	UHMW 1" Black
-----	----------	---------------

Comment: Qty.: 3.4083 sf(s)/Unit Total : 13.6332 sf(s) X2

Material: Black UHMW 1"  
(MUHMWB10)

Batch: 115721 B 9-2-6

4.0	WATER JET	FLOW WATER JET
-----	-----------	----------------

Comment: FLOW WATER JET

Cut Blank as per D2432 File

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Monday, 22/12/2008 2:13:48 PM  
User: Melanie Fauteux

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BEARPAW KIT (19"X24")

Job Number: 44223

Part Number: D206559013

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

HAAS1

HAAS CNC VERTICAL MACHINING #1



Comment: HAAS CNC VERTICAL MACHINING #1

Note:(2) bearpaws for (1) Kit

1-Inspect material for defects or damage prior to machining

2-Machine as per Folio and Dwg D2432 Identify as D2432F

3-Deburr

JL / mk 09/02/10

6.0

QC2

INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

JL / mk 09/02/10

7.0

QC8

SECOND CHECK



Comment: SECOND CHECK

DJP 09/02/11

8.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Packing Kit

9.0

D2182B

Rubber Cushion



Comment: Qty.: 2.6000 f(s)/Unit Total : 10.4000 f(s)

Pick: Packing Kit

Qty Part Number Description Batch

6 D2182B050 Rubber Cushion

maxed 8 09/02/12

42737

SS 09/02/12 (x4)

10.0

D2274

Radius Block



Comment: Qty.: 12.0000 Each(s)/Unit Total : 48.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

12 D2274 Radius Block

2 D2432F(ref only) Bearpaw

B43830

SS 09/02/12 (x4)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Monday, 22/12/2008 2:13:48 PM  
User: Melanie Fauteux

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BEARPAW KIT (19"X24")

Job Number: 44223

Part Number: D206559013

Job Number:



Seq. #:

Machine Or Operation:

Description :

11.0

D2438

Clamp



Comment: Qty.: 6.0000 Each(s)/Unit Total: 24.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

6 D2438

Clamp

43840

12.0

D2529

Washer



Comment: Qty.: 12.0000 Each(s)/Unit Total: 48.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

12 D2529

Washer

B42408

13.0

D2732

Rubber Extrusion



Comment: Qty.: 2.6000 f(s)/Unit Total: 10.4000 f(s)

Pick: Packing Kit

Qty Part Number Description Batch

6 D2732-050

Rubber Cushion

38509

14.0

AN415A

Bolt



Comment: Qty.: 12.0000 Each(s)/Unit Total: 48.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

12 AN4-15A

Bolt

M109148 x12. M110399 x36

15.0

AN417A

Bolt



Comment: Qty.: 12.0000 Each(s)/Unit Total: 48.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

12 AN4-17A

Bolt

M109061

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Monday, 22/12/2008 2:13:48 PM  
User: Melanie Fauteux

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BEARPAW KIT (19"X24")

Job Number: 44223

Part Number: D206559013

Job Number:



Seq. #:

Machine Or Operation:

Description :

16.0

AN960JD416

Washer



Comment: Qty.: 24.0000 Each(s)/Unit Total: 96.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

24 AN960JD416 Washer

M16523

SS 09/02/12 (x4)

17.0

MS21042L4

Nut



Comment: Qty.: 12.0000 Each(s)/Unit Total: 48.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

12 MS21042L4

Nut (or -4)

M109282

SS 09/02/12 (x4)

18.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

SS 09/02/12 (x4)

19.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPPD206-559-013

Location: A

SS 09/02/12 (x4)

20.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

09/02/12 (x4)

Job Completion



MF 09-02-13

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	44223
<b>Description:</b> Bearpaw		<b>Part Number:</b>	D2432
<b>Inspection Dwg:</b> D2432 <b>Rev:</b> F3		<b>Page 1 of 1</b>	

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article      ☐ Prototype

Inspection Sheet Drawing Dimension		Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
A	0.063 x 45°	+0.030/-0.010	.058 x 45°	—			
B	5.500	+/-0.030	5.500	—			
C	0.200	+/-0.030	.201	—			
D	0.25 x 45°	+/-0.030	.250 x 45°	—			
E	R0.250	+/-0.030	R.250	—			
F	0.250	+/-0.010	.245	—			
G	0.625	+/-0.030	.630	—			
H	0.375	+/-0.010	.380	—			
I	0.950	+0.030/0.010	.950	—			
J	19.000	+/-0.030	19.000	—			
K	3.14	+/-0.030	3.140	—			
L	3.28	+/-0.030	3.280	—			
M	Ø0.260	+0.005/-0.000	Ø.260	—			
N	Ø0.93	+/-0.030	Ø.924	—			
O	0.30	+0.030/-0.000	.305	—			
P	23.750	+/-0.030	23.750	—			
Q	7.375	+/-0.030	7.375	—			
R	4.250	+/-0.010	4.250	—			
S	2.000	+/-0.030	2.000	—			
T	9.000	+/-0.010	9.000	—			
U	9.000	+/-0.010	9.000	—			
V	0.375	+/-0.010	0.375	—			

<b>Measured by:</b>	<i>ml</i>	<b>Audited by:</b>	<i>SDP</i>	<b>Prototype Approval:</b>	N/A
<b>Date:</b>	09/02/09	<b>Date:</b>	09/02/11	<b>Date:</b>	

Rev	Date	Change	Revised by	Approved
A	04.01.09	New Issue      P/O K10008/D206-559-015	KJ/RF <i>RF</i>	<i>RF</i>

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

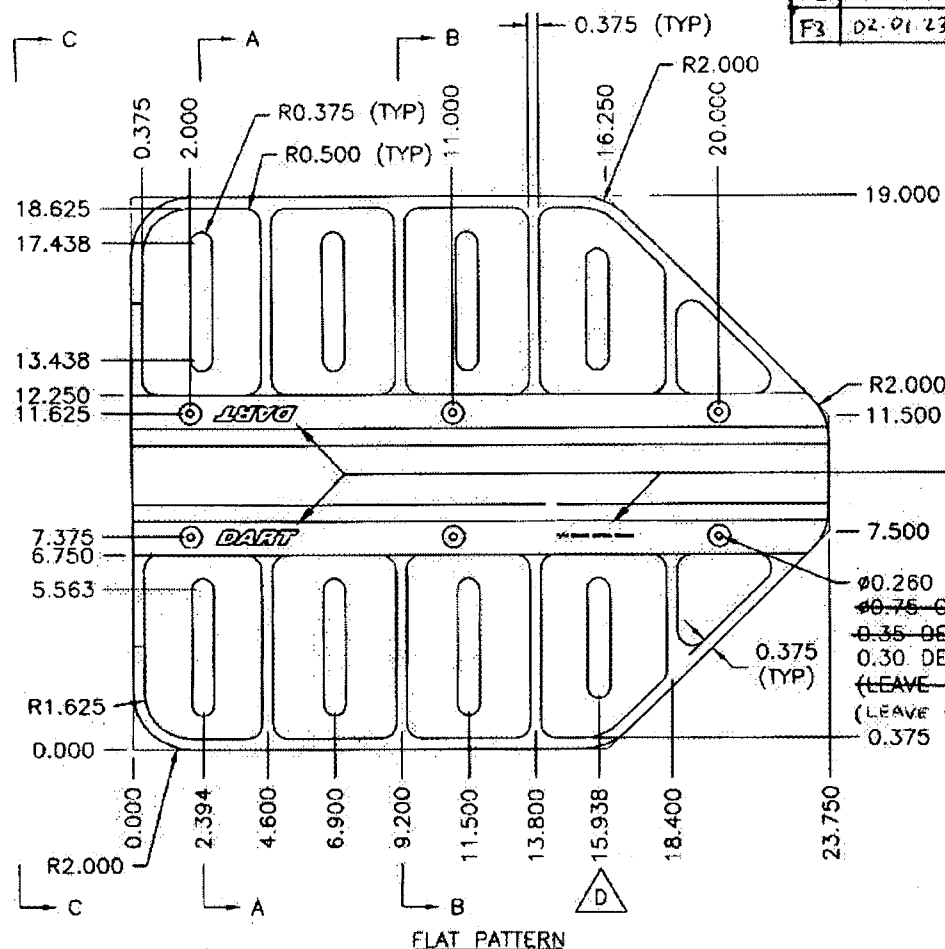
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



RELEASED  
98.06.17 KB

F1	99.03.03	ADD DEC 9143
F2	01.03.28	<del>Ø0.93 WAS Ø0.75</del> RF
F3	02.01.23	CLARIFY BORE DIMS RF



ENGRAVE LOGO TO MAX DEPTH OF 0.012. ENGRAVE PART AND BATCH NUMBERS TO MAX DEPTH OF 0.010. (TYPICAL LOCATION AS ILLUSTRATED)

Ø0.260 (TYP)  
~~Ø0.75 C'BORE~~ Ø0.93 C'BORE  
0.35 DEEP FROM TOP (MIN.)  
0.30 DEEP FROM BOTTOM  
(LEAVE 0.300 MIN.)  
(LEAVE 0.650 MIN.)  
0.375

REFERENCE ONLY

EFFECTIVE	DECS
9143	

D2432F: FLAT BEARPAW  
D2432B: BENT BEARPAW

MATERIAL: UHMW BLACK PER SPEC CONTROL DRAWING D2689  
1.00 THICK (MACHINE TO 0.950)

DESIGN	DRAWN BY	DART AEROSPACE LTD
KE	KE	HAMKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO.
RM	KE	D2432
DATE	TITLE	REV. F
98.05.12	BEARPAW	SHEET 1 OF 2
		SCALE
		1:5
A	95.10.31	NEW ISSUE
B	96.01.24	RE-DESIGN
C	96.03.26	CHANGE BORE AND C'BORE DEPTH
D	96.06.04	MOVE SLOT
E	97.02.27	CHANGE C'BORE DEPTH, BORE RADIUS
F	98.05.12	CHANGE C'BORE, ADD B AND F P/N

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

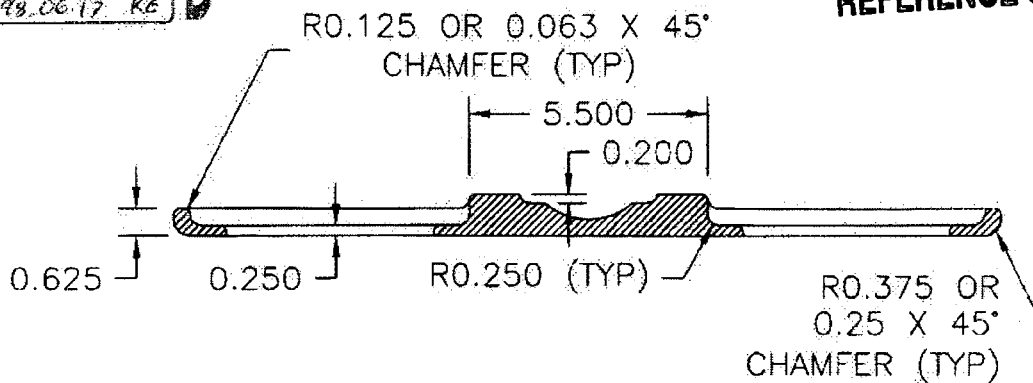
**NOTE:** Date & initial all entries



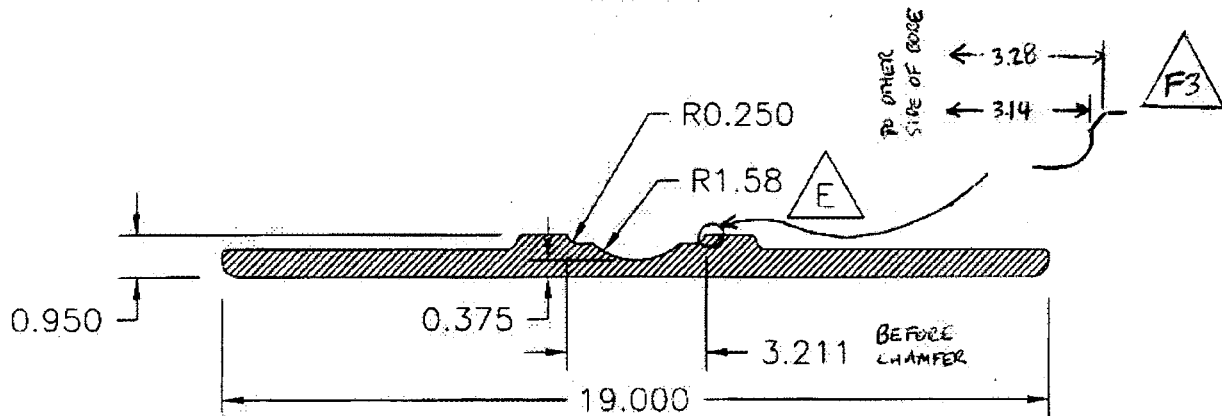
DESIGN <b>KE</b>	DRAWN BY <b>KE</b>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <b>KE</b>	APPROVED <b>KE</b>	DRAWING NO. D2432	REV. F SHEET 2 OF 2
DATE 98.05.12	TITLE BEARPAW		SCALE 1:1

RELEASED  
98.06.17 KE

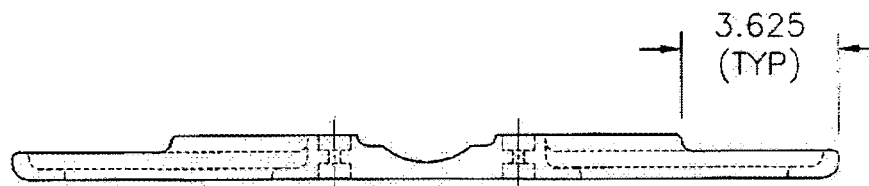
REFERENCE ONLY  
#44223



SECTION A-A



SECTION B-B



SECTION C-C

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries